

0590
1108

#2

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,740

DATE: 11/29/2001

TIME: 12:05:22

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

1 <110> APPLICANT: Lees, Ann M.
 2 Lees, Robert S.
 3 Law, Simon W.
 4 Arjona, Anibal A.
 5 <120> TITLE OF INVENTION: NOVEL LOW DENSITY LIPOPROTEIN BINDING
 6 PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING
 7 ATHEROSCLEROSIS
 8 <130> FILE REFERENCE: 10797-004001
 9 <140> CURRENT APPLICATION NUMBER: 09/976,740
 10 <141> CURRENT FILING DATE: 2001-10-12
 11 <150> PRIOR APPLICATION NUMBER: 09/616,289
 12 <151> PRIOR FILING DATE: 2000-07-14
 13 <150> PRIOR APPLICATION NUMBER: US 08/979,608
 14 <151> PRIOR FILING DATE: 1997-11-26
 15 <150> PRIOR APPLICATION NUMBER: US 60/031,930
 16 <151> PRIOR FILING DATE: 1996-11-27
 17 <150> PRIOR APPLICATION NUMBER: US 60/048,547
 18 <151> PRIOR FILING DATE: 1997-06-03
 19 <160> NUMBER OF SEQ ID NOS: 53
 20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 151
 24 <212> TYPE: PRT
 25 <213> ORGANISM: Oryctolagus cuniculus
 26 <400> SEQUENCE: 1
 27 Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val
 28 1 5 10 15
 29 Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp
 30 20 25 30
 31 Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln
 32 35 40 45
 33 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
 34 50 55 60
 35 Asn Thr Arg Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
 36 65 70 75 80
 37 Lys Val Leu Ile Ser Phe Lys Ala Gly Asp Ile Glu Lys Ala Val Gln
 38 85 90 95
 39 Ser Leu Asp Arg Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
 40 100 105 110
 41 Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Leu Gln Trp
 42 115 120 125
 43 His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
 44 130 135 140
 45 Leu Thr Ala Arg Lys Thr Val
 46 145 150
 48 <210> SEQ ID NO: 2
 49 <211> LENGTH: 317

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,740

DATE: 11/29/2001

TIME: 12:05:22

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

```

50 <212> TYPE: PRT
51 <213> ORGANISM: Oryctolagus cuniculus
52 <220> FEATURE:
53 <221> NAME/KEY: VARIANT
54 <222> LOCATION: (1)...(317)
55 <223> OTHER INFORMATION: Xaa = Any Amino Acid
56 <400> SEQUENCE: 2
W--> 57   Asp Cys Arg Ser Ser Ser Asn Asn Arg Xaa Pro Lys Gly Gly Ala Ala
58       1           5           10           15
59   Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
60       20           25           30
61   Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
62       35           40           45
63   Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
64       50           55           60
65   Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
66       65           70           75           80
67   Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala
68       85           90           95
69   Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu
70       100          105          110
71   Asp Asp Glu Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val
72       115          120          125
73   Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly
74       130          135          140
75   Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser
76       145          150          155          160
77   Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala
78       165          170          175
79   Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu
80       180          185          190
81   Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val
82       195          200          205
83   Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro
84       210          215          220
85   Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu
86       225          230          235          240
87   Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro
88       245          250          255
89   Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu
90       260          265          270
91   Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu
92       275          280          285
93   Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln
94       290          295          300
95   Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
96       305          310          315
98 <210> SEQ ID NO: 3
99 <211> LENGTH: 232

```

RAW SEQUENCE LISTING

DATE: 11/29/2001

PATENT APPLICATION: US/09/976,740

TIME: 12:05:22

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

100 <212> TYPE: PRT

101 <213> ORGANISM: Oryctolagus cuniculus

102 <400> SEQUENCE: 3

```

103   Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val
104       1           5           10           15
105   Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
106       20           25           30
107   Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
108       35           40           45
109   Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
110       50           55           60
111   Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
112       65           70           75           80
113   Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
114       85           90           95
115   Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
116       100          105          110
117   Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
118       115          120          125
119   Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
120       130          135          140
121   Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
122       145          150          155          160
123   Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
124       165          170          175
125   Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
126       180          185          190
127   Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
128       195          200          205
129   Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
130       210          215          220
131   Asp Asp Pro Glu Gly Phe Leu Gly
132       225          230

```

134 <210> SEQ ID NO: 4

135 <211> LENGTH: 252

136 <212> TYPE: PRT

137 <213> ORGANISM: Oryctolagus cuniculus

138 <400> SEQUENCE: 4

```

139   Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg
140       1           5           10           15
141   Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
142       20           25           30
143   Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Asp
144       35           40           45
145   Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro
146       50           55           60
147   Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly
148       65           70           75           80
149   Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu

```

RAW SEQUENCE LISTING

DATE: 11/29/2001

PATENT APPLICATION: US/09/976,740

TIME: 12:05:22

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

```

150                               85                               90                               95
151 Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly
152                               100                               105                               110
153 Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly
154                               115                               120                               125
155 Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
156                               130                               135                               140
157 Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
158                               145                               150                               155                               160
159 Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
160                               165                               170                               175
161 Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
162                               180                               185                               190
163 Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
164                               195                               200                               205
165 Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
166                               210                               215                               220
167 Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
168                               225                               230                               235                               240
169 His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
170                               245                               250
172 <210> SEQ ID NO: 5
173 <211> LENGTH: 557
174 <212> TYPE: PRT
175 <213> ORGANISM: Oryctolagus cuniculus
176 <400> SEQUENCE: 5
177 Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
178 1 5 10 15
179 Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
180 20 25 30
181 Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
182 35 40 45
183 Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
184 50 55 60
185 Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
186 65 70 75 80
187 Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
188 85 90 95
189 Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
190 100 105 110
191 Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
192 115 120 125
193 Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu
194 130 135 140
195 Ile Arg Thr Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
196 145 150 155 160
197 Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
198 165 170 175
199 Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu

```

RAW SEQUENCE LISTING

DATE: 11/29/2001

PATENT APPLICATION: US/09/976,740

TIME: 12:05:22

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

```

200          180          185          190
201 Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
202          195          200          205
203 Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
204          210          215          220
205 Asp His Leu Arg Gly Glu His Ser Lys Ala Ile Leu Ala Arg Ser Lys
206          225          230          235          240
207 Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
208          245          250          255
209 Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu
210          260          265          270
211 Val Thr Ser His Phe Gln Met Thr Leu Asn Asp Ile Gln Leu Gln Met
212          275          280          285
213 Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
214          290          295          300
215 Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
216          305          310          315          320
217 Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
218          325          330          335
219 Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
220          340          345          350
221 Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
222          355          360          365
223 Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
224          370          375          380
225 Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
226          385          390          395          400
227 Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
228          405          410          415
229 Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
230          420          425          430
231 Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
232          435          440          445
233 Glu Lys Thr Leu Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
234          450          455          460
235 Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
236          465          470          475          480
237 Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Pro Val
238          485          490          495
239 Ser Asp Ser Gly Pro Glu Arg Arg Pro Glu Pro Ala Thr Thr Ser Lys
240          500          505          510
241 Glu Gln Gly Val Glu Gly Pro Gly Ala Gln Val Pro Asn Ser Pro Arg
242          515          520          525
243 Ala Thr Asp Ala Ser Cys Cys Ala Gly Ala Pro Ser Thr Glu Ala Ser
244          530          535          540
245 Gly Gln Thr Gly Pro Gln Glu Pro Thr Thr Ala Thr Ala
246          545          550          555
248 <210> SEQ ID NO: 6
249 <211> LENGTH: 151

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/976,740

DATE: 11/29/2001

TIME: 12:05:23

Input Set : N:\Crf3\RULE60\09976740.raw

Output Set: N:\CRF3\11292001\I976740.raw

L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:2728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53